

States Patent No. 3,275,428 to Siegmund.

Claim 18 recites, *inter alia*, a method for making a holey fiber comprising stacking a plurality of structures comprising a first structure of a first material having a first softening point and a second structure of a second material having a hollow central portion and a second softening point that is higher than the first softening point, creating a fused element by heating the bundle to a fusion temperature to soften the first structure, creating a perform having channels therein, by removing the second structure from the fused element; **drawing the preform** at a draw temperature which is below the softening point of the first structure.

During the interview, the discussion focused on United States Patent No. 3,275,428 to Siegmund. In attendance at the interview was Dr. Brian Justus, inventor of the present application. Dr. Justus pointed out that employing the tubes of Siegmund within the apparatus of Berkey et al. would render the prior art invention being modified unsatisfactory for its intended purpose, i.e., method of making a holey fiber. Accordingly, under MPEP 2143.01, "[i]f the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification."

During the interview Dr. Justus stated that the tubes of Siegmund would render the device of Berkey et al. unusable. The size of the tubes disclosed in Siegmund are 10-50 microns (see column 4 line22). Dr. Justus further stated during the interview that this diameter of tubing would be unusable as a tubule in Berkey et al. because the diameter of the tubing would have an aspect ratio that is far too large to allow etchant to flow through the channels. Specifically, the effect would be to create a narrow tubule with a length that is too long to allow for etchant to flow through. This is the reason that the **tubules of Siegmund are first drawn, then a preform is formed**, the preform is cut and finally etched. Therefore, in Siegmund it is critical to cut the preform then etch because the tubules have been drawn to a size thus creating a very long and narrow tubule.

Accordingly, the preform of Siegmund is not drawn, as recited in claims 18 and 31. Further, the method disclosed in Berkey et al. that is modified to include the tubules of Siegmund would

render the method of Berkey et al. unsatisfactory because the tubules are now too narrow to allow etchant to flow, as discussed above.

Independent claim 31 includes similar limitations as independent claim 18 and is accordingly allowable.

For the reasons discussed above, there is no motivation to combine the tubules of Siegmund with the preform of Berkey et al. Accordingly, independent claims 18 and 31 are patentable over the prior art of record within the meaning of 35 U.S.C. § 103(a).

In view of the above, each of the claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

Dated:

Respectfully submitted,

By 

Aisha Ahmad

Registration No.: 47,381  
US NAVAL RESEARCH LABORATORY  
4555 Overlook Ave, SW  
Washington, DC 20375  
(202) 404-1557  
(202) 404-7380 (Fax)  
Attorney For Applicant